



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/480,013	01/10/2000	SHARAT SUBRAMANIYAM CHANDER	CHANDER6-5	3803

7590

06/06/2003

Walter W Duft  
LAW OFFICES OF WALTER W. DUFT  
10255 MAIN STREET  
SUITE 10  
CLARENCE, NY 14031

EXAMINER

CRAVER, CHARLES R

ART UNIT	PAPER NUMBER
----------	--------------

2682

DATE MAILED: 06/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/480,013

Applicant(s)  
Chander et al

Examiner  
Charles Craver

Art Unit  
2682



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jan 10, 2000 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 6) ☐ Other:

Art Unit: 2682

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Walter W. Duft on 5-19-03.

2. The application has been amended as follows:

In claim 22 line 1, change "1" to --21--. In claim 23 line 1, change "2" to --22--. In claim 24 line 1, change "3" to --23--. In claim 25, line 1, change "3" to --23--. In claim 26, line 1, change "3" to --23--. In claim 27, line 1, change "2" to --22--. In claim 28, line 1, change "7" to --27--. In claim 29, line 1, change "1" to --21--. In claim 30, line 1, change "9" to --29--.

In claim 32 line 1, change "11" to --31--. In claim 33 line 1, change "12" to --32--. In claim 34 line 1, change "13" to --33--. In claim 35, line 1, change "13" to --33--. In claim 36, line 1, change "13" to --33--. In claim 37, line 1, change "12" to --32--. In claim 38, line 1, change "17" to --37--. In claim 39, line 1, change "11" to --31--. In claim 40, line 1, change "19" to --39--.

Art Unit: 2682

## **DETAILED ACTION**

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: step “b” of FIG 5, and step “d” of FIG 9. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The disclosure is objected to because of the following informalities:

On page 8, lines 20 and 27, reference number 32 is used to reference a Message Center. However, reference number 32 was previously used to describe an SGSN in FIG 1, see page 6 lines 22-31.

On page 12, line 5, change “an d” to --an--.

On page 23, line 1, HLR 122 is referred to by the reference number 112, which is incorrect.

Appropriate correction is required.

Art Unit: 2682

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-4, 11-14, 21-24 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson, US Pat 6,400,942 in view of Hult, US Pat 5,822,700.

**Claims 1 and 21:** Hansson discloses a method for providing SMS (teleservice) messaging to mobile stations (10a et al) in a wireless network (8, col 3 line 55-col 4 line 21), comprising, at a network sending entity (SMSC 13), utilizing an indication of the maximum teleservice payload size that can be sent by the sending entity to the mobile stations (col 3 lines 1-11, col 4 lines 22-35) via network receiving entities (MSC) serving said mobile station (col 4 lines 36-62) to format the size of teleservice messages sent by the sending entity to the mobile station via said receiving entities (col 3 lines 11-14, col 4 lines 22-35, col 6 line 42-col 7 line 13).

Hansson fails to disclose that the network sending entity receives said indication (i.e. it is provided to it), implying that the indication is created or calculated at another site.

Art Unit: 2682

Hult discloses an analogous invention, that is, a cellular system (FIG 1) wherein a switching center (30) may utilize a calculation (thus being utilizable) to determine a maximum size of a teleservice message (col 2 lines 38-65) based on an indication received from another entity in the system (col 3 lines 2-13 and line 56-col 4 line 13). The purpose of this is to allow the indication to be tailored to the system (col 1 lines 50-57), which improves bandwidth usage (col 2 lines 7-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hansson by the teachings of Hult. Hansson discloses that bandwidth is an important commodity in a messaging cellular system, and that a maximum size for messages should be used to keep message traffic from overloading the system (col 1 lines 50-59). One of ordinary skill in the art would thus have been motivated to add Hult to Hansson by the teachings of Hult, where it is stated that providing a maximum SMS message size indication from the cellular network itself allows better messaging system control (col 1 lines 50-57, col 2 lines 7-10).

**Claims 2 and 22:** the combined invention of Hansson and Hult discloses an SMSC which receives an indication, as shown above, and Hult further discloses that the indication measurement system (40) is connected to the receiving entity (col 5 lines 46-51, FIG 1), one of ordinary skill in the art would understand the need to use the MSC to send the indication to the SMSC via the means connected to it, i.e. said MSC. **Claims 3, 4, 23 and 24:** as stated above regarding claim 2, the indication would be sent by the MSC, which is read as a switch.

Art Unit: 2682

**Claims 11 and 31:** Hansson discloses a system for providing SMS (teleservice) messaging to mobile stations (10a et al) in a wireless network (8, col 3 line 55-col 4 line 21), comprising, at a network sending entity (SMSC 13), means for utilizing an indication (thus being utilizable) of the maximum teleservice payload size that can be sent by the sending entity to the mobile stations (col 3 lines 1-11, col 4 lines 22-35) via network receiving entities (MSC) serving said mobile station (col 4 lines 36-62) to format the size of teleservice messages sent by the sending entity to the mobile station via said receiving entities (col 3 lines 11-14, col 4 lines 22-35, col 6 line 42-col 7 line 13).

Hansson fails to disclose that the network sending entity receives said indication, implying that the indication is created or calculated at another site.

Hult discloses an analogous invention, that is, a cellular system (FIG 1) wherein a switching center (30) may utilize a calculation to determine a maximum size of a teleservice message (col 2 lines 38-65) based on an indication received from another entity in the system (col 3 lines 2-13 and line 56-col 4 line 13). The purpose of this is to allow the indication to be tailored to the system (col 1 lines 50-57), which improves bandwidth usage (col 2 lines 7-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hansson by the teachings of Hult. Hansson discloses that bandwidth is an important commodity in a messaging cellular system, and that a maximum size for messages should be used to keep message traffic from overloading the system (col 1 lines 50-59). One of ordinary skill in the art would thus have been motivated to add Hult to Hansson by the teachings

Art Unit: 2682

of Hult, where it is stated that providing a maximum SMS message size indication from the cellular network itself allows better messaging system control (col 1 lines 50-57, col 2 lines 7-10).

**Claims 12 and 32:** the combined invention of Hansson and Hult discloses an SMSC which receives an indication, as shown above, and Hult further discloses that the indication measurement system (40) is connected to the receiving entity (col 5 lines 46-51, FIG 1), one of ordinary skill in the art would understand the need to use the MSC to send the indication to the SMSC via the means connected to it, i.e. said MSC. **Claims 13, 14, 33 and 34:** as stated above regarding claim 2, the indication would be sent by the MSC, which is read as a switch.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 3 above, and further in view of Farris, US Pat 5,805,997.

While disclosing applicant's invention of claim 3 as shown above, Hansson in view of Hult fails to disclose that the switch may be an MDIS.

Farris discloses, in an analogous art, that is a mobile communications messaging system (FIG 3, col 11 line 49-col 12 line 41) that in a CDPD messaging system a switch (1003) serving base stations (1001) like the MSC of Hansson in view of Hult may have the properties of an MDIS (col 12 line 41-col 13 line 24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hansson in view of Hult to use the functions of an MDIS in the switch. This would have been motivated by the teachings of Farris, where it is stated that the MDIS allows



Art Unit: 2682

CDPD messaging in the system (col 12 lines 57-67), thus said modification would allow Hansson in view of Hult to operate with CDPD, a popular messaging system.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 3 above, and further in view of Einola, US Pat 6,434,393.

While disclosing applicant's invention of claim 3 as shown above, Hansson in view of Hult fails to disclose that the switch may be a SGSN.

Einola discloses, in an analogous art, that is a mobile communications messaging system (FIG 1, col 4 lines 30-62) that in a GSM messaging system using GPRS a switch (4) serving base stations (3) like the MSC of Hansson in view of Hult may have the properties of a SGSN (col 9 line 66-col 10 line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hansson in view of Hult to use the functions of a SGSN in the switch. This would have been motivated by the teachings of Einola, where it is stated that the SGSN allows messaging in future GSM system, thus said modification would allow Hansson in view of Hult to operate using GSM, a popular cellular system.

9. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 2 above, and further in view of Ross et al, US Pat 6,263,212.

Art Unit: 2682

While Hult further discloses an HLR database (32) which is associated with the mobile stations since it stores information regarding said stations, Hansson in view of Hult fails to disclose the use of said database for routing the indication to the message center sending entity. Hult does disclose that the message may be routed to the appropriate MSC by first utilizing the HLR of the network to find said appropriate MSC (col 4 line 66-col 5 line 31).

Ross discloses an analogous art, that is, a cellular messaging system (FIG 2) using a sending entity (50) connected to an HLR (52), which further utilizes a database which may contain data regarding the maximum message size for a particular MSC (col 10 lines 16-65). This allows the MC to get the data more directly, rather than go through the extra steps of finding the particular MSC and contacting it only to find that the message must be returned to the MC to be reformatted. Thus it would have been obvious to one of ordinary skill in the art to use a database such as that suggested by Ross in the method of Hansson in view of Hult, to send the indication information to the SMSC, as it would avoid the aforementioned extra steps. Further, one of ordinary skill in the art would also have recognized that by utilizing the HLR for storing said data, which already contains large amounts of network data, this step could be performed with less steps and save time and network usage, as the MC would have to interrogate the HLR anyway in order to determine the MSC and thus its corresponding payload (Ross col 5 lines 44-58).

10. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 1 above, and further in view of Ross et al.

Art Unit: 2682

While Hult further discloses an HLR database (32) which is associated with the mobile stations since it stores information regarding said stations, Hansson in view of Hult fails to disclose the use of said database for routing the indication to the message center sending entity, or sending the indication as a parameter in a standard registration message either to database or to the MC. Hult does disclose that the message may be routed to the appropriate MSC by first utilizing the HLR of the network to find said appropriate MSC (col 4 line 66-col 5 line 31).

Ross discloses an analogous art, that is, a cellular messaging system (FIG 2) using a sending entity (50) connected to an HLR (52), which further utilizes a database which may contain data regarding the maximum message size for a particular MSC (col 10 lines 16-65). This allows the MC to get the data more directly, rather than go through the extra steps of finding the particular MSC and contacting it only to find that the message must be returned to the MC to be reformatted. Thus it would have been obvious to one of ordinary skill in the art to use a database such as that suggested by Ross in the method of Hansson in view of Hult, to send the indication information to the SMSC, as it would avoid the aforementioned extra steps. Further, one of ordinary skill in the art would also have recognized that by utilizing the HLR for storing said data, which already contains large amounts of network data, this step could be performed with less steps and save time and network usage, as the MC would have to interrogate the HLR anyway in order to determine the MSC and thus its corresponding payload (Ross col 5 lines 44-58). Lastly, since there would be an inherent message exchange between the MSC and the database, and the database and the MC, prior to having the indication at the MC, such is read as a standard

Art Unit: 2682

registration message parameter by the examiner. As such, the combined invention of Hansson in view of Hult and Ross would inherently utilize such a message parameter to communicate the indication from the MSC to the HLR and then to the MC.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 13 above, and further in view of Farris.

Regarding claim 15, which is dependent upon claim 13, please see the rejection of method claim 5 above, which corresponds to system claim 15.

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 13 above, and further in view of Einola.

Regarding claim 16, which is dependent upon claim 13, please see the rejection of method claim 6 above, which corresponds to system claim 16.

13. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 12 above, and further in view of Ross et al.

While Hult further discloses an HLR database (32) which is associated with the mobile stations since it stores information regarding said stations, Hansson in view of Hult fails to disclose the use of said database for routing the indication to the message center sending entity. Hult does disclose that the message may be routed to the appropriate MSC by first utilizing the HLR of the network to find said appropriate MSC (col 4 line 66-col 5 line 31).

Art Unit: 2682

Ross discloses an analogous art, that is, a cellular messaging system (FIG 2) using a sending entity (50) connected to an HLR (52), which further utilizes a database which may contain data regarding the maximum message size for a particular MSC (col 10 lines 16-65). This allows the MC to get the data more directly, rather than go through the extra steps of finding the particular MSC and contacting it only to find that the message must be returned to the MC to be reformatted. Thus it would have been obvious to one of ordinary skill in the art to use a database such as that suggested by Ross in the method of Hansson in view of Hult, to send the indication information to the SMSC, as it would avoid the aforementioned extra steps. Further, one of ordinary skill in the art would also have recognized that by utilizing the HLR for storing said data, which already contains large amounts of network data, this step could be performed with less steps and save time and network usage, as the MC would have to interrogate the HLR anyway in order to determine the MSC and thus its corresponding payload (Ross col 5 lines 44-58).

14. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 11 above, and further in view of Ross et al.

While Hult further discloses an HLR database (32) which is associated with the mobile stations since it stores information regarding said stations, Hansson in view of Hult fails to disclose the use of said database for routing the indication to the message center sending entity, or sending the indication as a parameter in a standard registration message either to to database or to

Art Unit: 2682

the MC. Hult does disclose that the message may be routed to the appropriate MSC by first utilizing the HLR of the network to find said appropriate MSC (col 4 line 66-col 5 line 31).

Ross discloses an analogous art, that is, a cellular messaging system (FIG 2) using a sending entity (50) connected to an HLR (52), which further utilizes a database which may contain data regarding the maximum message size for a particular MSC (col 10 lines 16-65). This allows the MC to get the data more directly, rather than go through the extra steps of finding the particular MSC and contacting it only to find that the message must be returned to the MC to be reformatted. Thus it would have been obvious to one of ordinary skill in the art to use a database such as that suggested by Ross in the method of Hansson in view of Hult, to send the indication information to the SMSC, as it would avoid the aforementioned extra steps. Further, one of ordinary skill in the art would also have recognized that by utilizing the HLR for storing said data, which already contains large amounts of network data, this step could be performed with less steps and save time and network usage, as the MC would have to interrogate the HLR anyway in order to determine the MSC and thus its corresponding payload (Ross col 5 lines 44-58). Lastly, since there would be an inherent message exchange between the MSC and the database, and the database and the MC, prior to having the indication at the MC, such is read as a standard registration message parameter by the examiner. As such, the combined invention of Hansson in view of Hult and Ross would inherently utilize such a message parameter to communicate the indication from the MSC to the HLR and then to the MC.

Art Unit: 2682

15. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 23 above, and further in view of Farris.

Regarding claim 25, which is dependent upon claim 23, please see the rejection of method claim 5 above.

16. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 23 above, and further in view of Einola.

Regarding claim 26, which is dependent upon claim 23, please see the rejection of method claim 6 above.

17. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 22 above, and further in view of Ross.

Regarding claims 27 and 28, which are dependent on claim 22, please see the rejection of corresponding method claims 7 and 8 above, respectively.

18. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 21 above, and further in view of Ross.

Regarding claims 29 and 30, which are dependent on claim 21, please see the rejection of corresponding method claims 9 and 10 above, respectively.

19. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 33 above, and further in view of Farris.

Art Unit: 2682

Regarding claim 35, which is dependent upon claim 33, please see the rejection of method claim 5 above, which corresponds to system claim 35.

20. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 33 above, and further in view of Einola.

Regarding claim 36, which is dependent upon claim 33, please see the rejection of method claim 6 above, which corresponds to system claim 36.

21. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 32 above, and further in view of Ross.

Regarding claims 37 and 38, which are dependent on claim 32, please see the rejection of corresponding method claims 17 and 18 above, respectively.

22. Claims 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult as applied to claim 31 above, and further in view of Ross.

Regarding claims 39 and 40, which are dependent on claim 31, please see the rejection of corresponding method claims 19 and 20 above, respectively.

23. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Hult and Ross.

Hansson discloses a method for providing SMS (teleservice) messaging to mobile stations (10a et al) in a wireless network (8, col 3 line 55-col 4 line 21), comprising, at a network sending



Art Unit: 2682

entity (SMSC 13), utilizing an indication of the maximum teleservice payload size that can be sent by the sending entity to the mobile stations (col 3 lines 1-11, col 4 lines 22-35) via network receiving entities (MSC) serving said mobile station (col 4 lines 36-62) to format the size of teleservice messages sent by the sending entity to the mobile station via said receiving entities (col 3 lines 11-14, col 4 lines 22-35, col 6 line 42-col 7 line 13).

Hansson fails to disclose that the network sending entity receives said indication (i.e. it is provided to it), implying that the indication is created or calculated at another site, or the use of a database for routing the indication to the message center sending entity, or sending the indication as a parameter in a standard registration message either to to database or to the MC.

Hult discloses an analogous invention, that is, a cellular system (FIG 1) wherein a switching center (30) may utilize a calculation (thus being utilizable) to determine a maximum size of a teleservice message (col 2 lines 38-65) based on an indication received from another entity in the system (col 3 lines 2-13 and line 56-col 4 line 13). The purpose of this is to allow the indication to be tailored to the system (col 1 lines 50-57), which improves bandwidth usage (col 2 lines 7-13). Also, Hult further discloses an HLR database (32) which is associated with the mobile stations, which stores information regarding said stations, and that the message may be routed to the appropriate MSC by first utilizing the HLR of the network to find said appropriate MSC (col 4 line 66-col 5 line 31).

Ross discloses an analogous art, that is, a cellular messaging system (FIG 2) using a sending entity (50) connected to an HLR (52), which further utilizes a database which may

Art Unit: 2682

contain data regarding the maximum message size for a particular MSC (col 10 lines 16-65). This allows the MC to get the data more directly, rather than go through the extra steps of finding the particular MSC and contacting it only to find that the message must be returned to the MC to be reformatted.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hansson by the teachings of Hult and Ross. Hansson discloses that bandwidth is an important commodity in a messaging cellular system, and that a maximum size for messages should be used to keep message traffic from overloading the system (col 1 lines 50-59). One of ordinary skill in the art would thus have been motivated to add Hult to Hansson by the teachings of Hult, where it is stated that providing a maximum SMS message size indication from the cellular network itself allows better messaging system control (col 1 lines 50-57, col 2 lines 7-10), as well as Ross, so as to send the indication information to the SMSC, as it would avoid the aforementioned extra steps.

Further, one of ordinary skill in the art would also have recognized that by utilizing the HLR for storing said data, which already contains large amounts of network data, this step could be performed with less steps and save time and network usage, as the MC would have to interrogate the HLR anyway in order to determine the MSC and thus its corresponding payload (Ross col 5 lines 44-58). Lastly, since there would be an inherent message exchange between the MSC and the database, and the database and the MC, prior to having the indication at the MC, such is read as a standard registration message parameter by the examiner. As such, the combined

Art Unit: 2682

invention of Hansson in view of Hult and Ross would inherently utilize such a message parameter to communicate the indication from the MSC to the HLR and then to the MC.

*Conclusion*

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Alanara et al, Agarwal et al, and Liao discuss wireless group message handling.

Maxemchuk discusses message size handling in a packet-switched network.

**25. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9314, (for formal communications intended for entry)

**Or:**

(703) 872-9314 (for informal or draft communications, please label "PROPOSED"

or "DRAFT")

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, sixth floor (receptionist).

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Craver whose telephone number is (703) 305-3965.

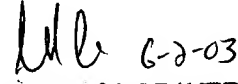
Art Unit: 2682

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached on (703) 308-6739.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

cc

C. Craver  
June 2, 2003

  
**CHARLES CRAVER**  
**PATENT EXAMINER**